

Application S/N 10/797,729  
Amendment Dated: October 16, 2006  
Response to Office Action dated: May 31, 2006

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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) A method for charging a battery, comprising the steps of:

determining a charge termination point for the battery, wherein the charge termination point produces a charge on the battery that is less than an initial maximum charging capacity of the battery; and

charging the battery using the charge termination point for at least a portion of the charge cycles of the battery to reduce at least in part the variation of battery capacity over the cycle life of the battery;

wherein the charge termination point is at least partially based on a percentage of transmission time, a percentage of receive time or a percentage of standby time, each of which is associated with a mobile communications device.

2. (original) The method according to claim 1, wherein the step of determining a charge termination point for the battery comprises the steps of:

determining a number of charge cycles, an initial maximum capacity of the battery and a target capacity of the battery;

determining a charge factor based on the number of charge cycles; and calculating a charge termination factor based on the charge factor, the initial maximum capacity of the battery and the target capacity of the battery, wherein the charge termination point is based on the charge termination factor.

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3. (currently amended) The method according to claim 1, wherein the charge termination point is selected from at least one of a termination charge voltage and or a charge current termination point.

4. (original) The method according to claim 2, further comprising the step of accessing the number of charge cycles, the initial maximum capacity of the battery and the target capacity of the battery from a memory of the battery.

5. (original) The method according to claim 4, wherein the memory is an electrically erasable programmable read only memory.

6. (canceled)

7. (original) The method according to claim 2, further comprising the step of incrementing the number of charge cycles each time the battery is charged to its charge termination factor.

8. (canceled)

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9. (currently amended) A system for charging a battery, comprising:
  - a battery; and
  - a charging unit having a processor, wherein the processor is programmed to determine a charge termination point for the battery, wherein the charge termination point produces a charge on the battery that is less than an initial maximum charging capacity of the battery;
    - wherein the charging unit charges the battery using the charge termination point for at least a portion of the charge cycles of the battery to reduce at least in part the variation of battery capacity over the cycle life of the battery;
    - wherein the charge termination point is at least partially based on a percentage of transmission time, a percentage of receive time or a percentage of standby time, each of which is associated with a mobile communications device.
10. (original) The system according to claim 9, wherein the processor is programmed to determine the charge termination point for the battery by:
  - determining a number of charge cycles, an initial maximum capacity of the battery and a target capacity of the battery;
  - determining a charge factor based on the number of charge cycles; and
  - calculating a charge termination factor based on the charge factor, the initial maximum capacity of the battery and the target capacity of the battery, wherein the charge termination point is based on the charge termination factor.

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11. (currently amended) The system according to claim 9, wherein the processor is further programmed to select the charge termination point from ~~at least one~~ of a termination charge voltage and or a charge current termination point.

12. (original) The system according to claim 10, wherein the battery comprises a memory and wherein the processor is further programmed to access the number of charge cycles, the initial maximum capacity of the battery and the target capacity of the battery from the memory of the battery.

13. (original) The system according to claim 12, wherein the memory is an electrically erasable programmable read only memory.

14. (canceled)

15. (original) The system according to claim 10, wherein the processor is further programmed to increment the number of charge cycles each time the battery is charged to its charge termination factor.

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16. (currently amended) A battery for supplying power to an electronic device, comprising:

at least one cell for receiving power from a charging unit; and  
a memory, wherein when the battery is coupled to the charging unit, a processor of the charging unit is programmed to determine a charge termination point for the battery, wherein the charge termination point produces a charge on the battery that is less than an initial maximum charging capacity of the battery and wherein the charging unit charges the battery using the charge termination point for at least a portion of the charge cycles of the battery to reduce at least in part the variation of battery capacity over the cycle life of the battery;

wherein the charge termination point is at least partially based on a percentage of transmission time, a percentage of receive time or a percentage of standby time, each of which is associated with a mobile communications device.

17. (original) The battery according to claim 17, wherein the memory is an electrically programmable read only memory that stores a number of charge cycles, an initial maximum capacity and a target capacity of the battery and wherein the processor accesses the number of charge cycles, the initial maximum capacity and the target capacity of the battery to determine the charge termination point.

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18. (currently amended) A charging unit for charging a battery, comprising:

a charge control circuit for controlling charging current to the battery; and

a processor, wherein the processor is programmed to determine a charge termination point for the battery, wherein the charge termination point produces a charge on the battery that is less than an initial maximum charging capacity of the battery;

wherein the charging unit charges the battery using the charge termination point for at least a portion of the charge cycles of the battery to reduce at least in part the variation of battery capacity over the cycle life of the battery;

wherein the charge termination point is at least partially based on a percentage of transmission time, a percentage of receive time or a percentage of standby time, each of which is associated with a mobile communications device.

19. (original) The charging unit according to claim 18, wherein the processor is programmed to determine the charge termination point for the battery by:

determining a number of charge cycles, an initial maximum capacity of the battery and a target capacity of the battery;

determining a charge factor based on the number of charge cycles; and

calculating a charge termination factor based on the charge factor, the initial maximum capacity of the battery and the target capacity of the battery, wherein the charge termination point is based on the charge termination factor.